Abstract:

There is proposed a tool with a tool body and a wear resistant layer system, which layer system comprises at least one layer of MeX. Me comprises titanium and aluminum and X is nitrogen or carbon. The tool has a tool body of high speed steel (HSS) or of cemented carbide, but it is not a solid carbide end mill and not a solid carbide ball nose mill. In the MeX layer the quotient Q_r as defined by the ratio of the diffraction intensity I(200) to I(111) assigned respectively to the (200) and (111) plains in the X ray diffraction of the material using θ-2θ method is selected to be $\geq$ 1. Further, the I(200) is at least twenty times larger than the intensity average noise value, both measured with a well-defined equipment and setting thereof.